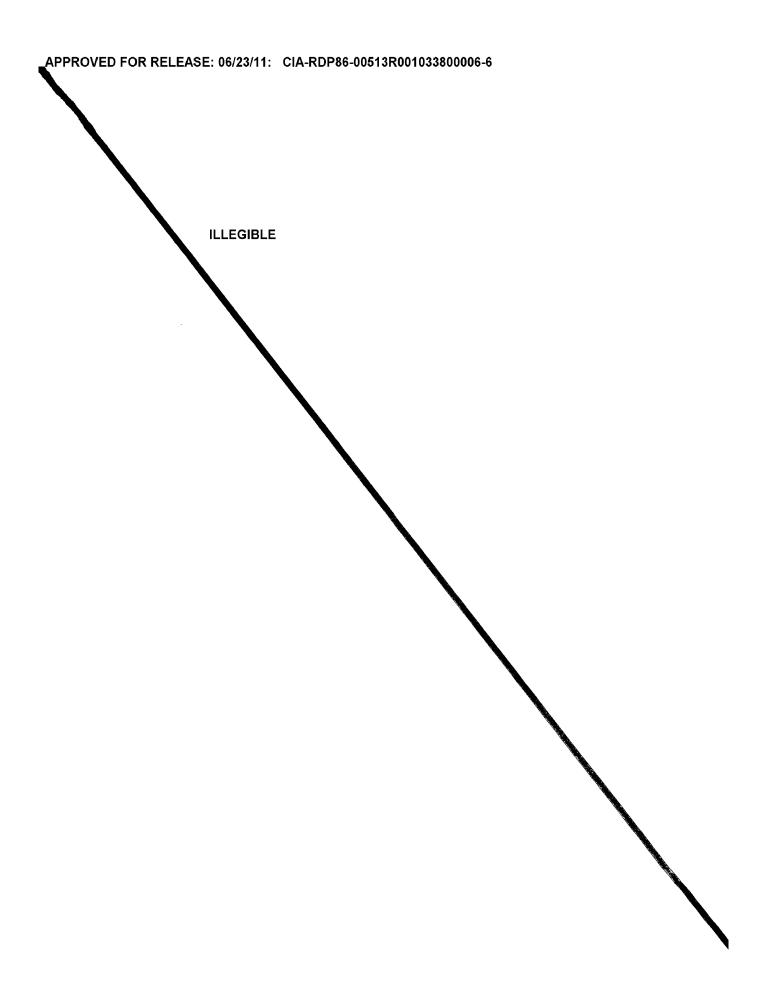
CIA-RDP86-00513R001033800006-6 MIGAL', S.P., kand. ekon. nauk; ABRAMOVA, A.F., kand. ekon. nauk (Dnepropetrovsk); GRISHEL', Ye.P., inzh.; DUNAYEV, N.I., inzh. (stantsiya Kuybyshevka-Vostochnaya) How to improve the system of economic accountability in classification yards. Zhel.dor.transp. 40 no.4:38-41 Ap 158. (MIRA 13:4) (Railroads -- Accounts, bookkeeping, etc.)

06/23/11: CIA-RDP86-00513R001033800006-6 HI(AL', Stepen Paylovich; CHERNYSHEV, V.I., red.; BOBROVA, Ye.N., tekhn. [Wages in railroad transportation] Zarabotnaia plata na zhelezno-dorozhnom transporte. Moskva, Gos. transp. zhel.-dor. izd-vo. 1958. 53 p. (Wages) (Railroads)

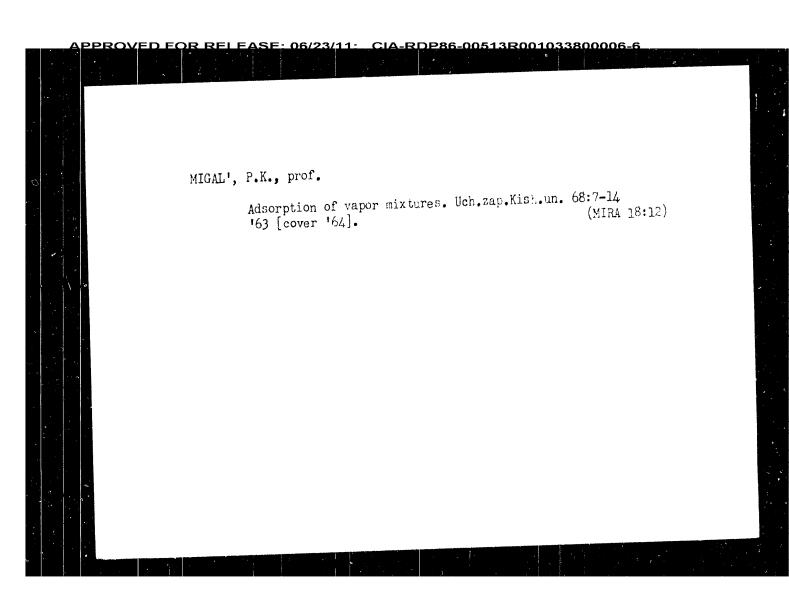
MIGAL', S. P. Wages of the railroad transportation system (by occupations) Moskva, Transqheldorizdat, 1951. 87 p. (Ekonomicheskaia bibliotechka zheleznodorozhnika) MIGAL', P.K.; PLOAYE, K.I. Complex compounds of silver with ethanolamine in water-alcohol solutions. Zhur.neorg.khim. 10 no.11:2517-2521 N 165. (MIRA 18:12) 1. Kishinevskiy gosudarstvennyy universitet. Submitted April 21, 1964.

MIGAL', P.K.; SEROVA, G.F. Complex formation of cadmium with monoethanolamine in watermethanol solutions. Zhur.neorg.khim. 10 no.11:2513-2516 N 65. (MIRA 18:12) 1. Kafedra fizicheskoy khimii Kishinevskogo gomudarstvennogo universiteta. Submitted April 11, 1964.

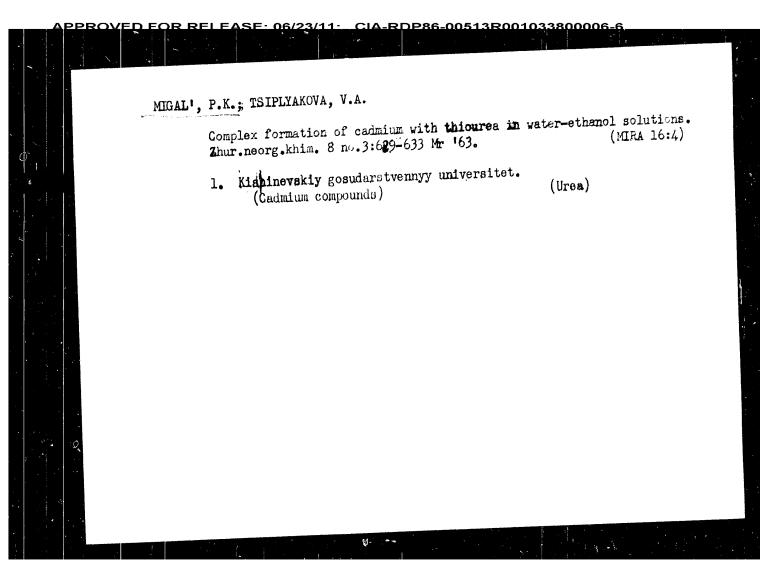
CIA-RDP86-00513R001033800006-6 MICAL!, P.R.; DERUVA, C.F. Pelarographic study of the complex formation of redular with triethanolamine in water ethanol solutions. Thur, needy, which (MIRA 18:7) 10 no.3:615-618 Mr 165. 1. Kishinerskiy gosudarstvenegy institut.



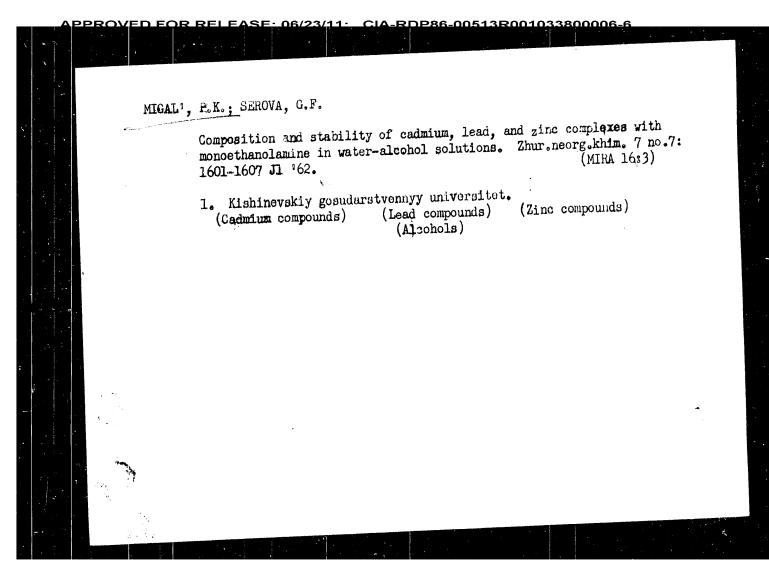
MIGAL', P.K., prof.; KARDIVARENKO, M.A., dotsent; KRENIS, G.A. New adsorbent from mineral raw materials of Moldavia. Toh. way. Kish. un. 68:97-99 163 [cover 164]. (MIRA 18:12)



SYCHEV, A.Ya.; GERBELEU, A.P.; MIGAL', P.K. Thermodynamics of a stepped complex formation of nickel ions with triethanolamine. Zhur.neorg.khim. 8 no.9:2070-2073 S 163. (MIRA 16:10)



CIA-RDP86-00513R001033800006-6 SYCHEV, A.Ya.; MIGAL!, P.K.; Prinimali uchastiye: TIMONINA, L.I.; MIGAL!, Ye,P.; YERMOLENKO, P.P. Stability of complex compounds of some metals with phenylalanine, lysine and tyrosin. Biokhimiia 27 no.1:25-31 Ja-F 162. (MIRA 15:5) 1. State University, Kishinev. (ORGANOMETALLIC COMPOUNDS) (TYROSIN) (LYSINE) (ALANINE)



MIGAL', P.K.; GRINBERG, N.Kh. Complex formation of cadmium, lead, and zinc ions with forma-mide in water - methyl alcohol and water - ethyl alcohol solu-tions. Zhur.neorg.khim. 7 no.6:1309-1312 Je '62. (MIRA 15:6) 1. Kishinevskiy gosudarstvennyy universitet, kafedra fizicheskoy (Complex compounds) (Formamide) khimii.

MIGAL', P.K.; GRINBERG, N.Kh. Resolvation of cadmium and lead ions in acetone-aqueous and nesolvation of caumium and real following shim. 7 no.3:531-535 acetone-alcoholic solutions. Zhur.neorg.khim. 7 no.3:531-535 (MIRA 15:3) Mr 162. 1. Kishinevskiy gosudarstvennyy universitet.
(Metal ions) (Solvation)

MIGAL!, P.K.; GRINBERG, N.Kh. Study of the resolvation of certain metal ions in normqueous systems by the polarographic method. Zhur.neorg.khim. 7
no.3:527-530 Mr '62. 1. Kishinevskiy gosudarstvennyy universitet. (Metal ions) (Solvation)

MIGAL', P.K.; GRINBERG, N.Kh. Use of the polarographic method in the study of the hydration of certain ions in methanol solutions. Zhur. neorg. khim. 6
23:727-731 Mr 161. no.3:727-731 Mr '61. 1. Kishinevskiy gosudarstvennyy universitet.

(Hydration)

(Ions)

The Study of Hydrogen and exymen Acade tion and Their heaction on Liabilium

S/076/60/034/06/01/045 B015/B06:

A. I. Shlygin, A. N. Frumkin, S. Z. Roginskiy, Ye. I. Shuj ts, and ences: 7 Soviet, 1 Japanese, and 1 German.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: September 6, 1955

Card 3/3

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6</u>

The Study of Hydrogen and Oxygen Adsorption and Their Reaction on Platinum

\$/076/60/034/06/01/040 B015/B061

curves by charge curves. It was established that the adsorption of hydrogen on unpoisoned platinum is of the zeroth order. An addition of KCN alters the form of the kinetic isothermal line (Fig. 3), so that the straight line (of the zeroth order) is converted into a curve of the first order. Arsenic is apparently not selectively distributed on the platinum surface, poisons the centers of adsorption, but does not destroy the mobility of hydrogen on the platinum surface. Mercury weakens the surface diffusion of hydrogen, whilst the CN ions act as a selectively blocking poison, and impede the surface diffusion of hydrogen. The oxygen adsorption on poisoned and pure platinum can be described by the Benham-Bart equation. The effect of the poisons decreases in the order CN' > Hg > As. Tests of the reaction between adsorbed hydrogen and molecular oxygen led to the assumption that the reaction rate is determined by the number of collisions of oxygen molecules with the hydrogen-saturated platinum surface on a redistribution of hydrogen A similar mechanism, but without hydrogen redistribution, is assumed for the reaction between adsorbed oxygen and molecular hydrogen. Arsenic and mercury delay the reaction, whilst CN ions accelerate it. In the presence of all three additions the reaction follows the first order

Card 2/3

815/2 \$/076/60/034/06/01/040 B015/B061

5.1190 AUTHORS: Migal', P. K., Tsiplyakova, V. A. (Kishinev)

TITLE:

The Study of Hydrogen and Oxygen Adsorption and Their

Reaction on Platinum

Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6, PERIODICAL:

pp。1153-1160

The kinetics of hydrogen and oxygen adsorption and the reaction occurring in the surface layer of platinum in the presence of arsenic, mercury, and cyanide ions was studied. The tests took place in three series, and the catalyst electrode used was prepared by electrochemical depositing of platinum black onto a Pt lamina. Solutions of 0.1 N sulfuric acid or 0.1 N soda lye were used as electrolyte, from which oxygen was removed by saturation with nitrogen. The electrode was poisoned with As203 or HgCl2 solution in an H2SO4 solution, and in

NaOH solution with CN ions. Potential - time curves were obtained from the kinetic tests, which were reduced to "quantity of adsorbed gas - time"

Card 1/3

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

69053

Complex Compounds of Cadmium With Monoethanol Amine, Diethanol Amine, and Triethanol Amine

S/078/60/005/03/018/048 B004/B002

of the reaction of Cd with mono, di- and triethanol amine. The authors found 5 monoethanol amine complexes of Cd with the coordination indices of 1 - 5 and three di- and triethanol amine complexes with coordination indices of 1 - 3. The instability constants computed according to Deford, Hume and Yatsimirskiy are shown by table 3. The increasing content of ethanol radicals has no influence on the stability of the complexes. There are 4 figures, 3 tables, and 13 references, 7 of which are Soviet.

ASSOCIATION:

Kishinevskiy gosudarstvennyy universitet

(Kishinev State University)

SUBMITTED:

October 26, 1958

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

5.2620

AUTHORS:

Migal', P. K., Fushnykk, A. N.

69053

S/078/60/005/03/018/048 B004/B002

TITLE:

Complex Compounds of Cadmium With Monoethanol Amine, Diethanol

Amine, and Triethanol Amine

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 3, pp 610-614 (USSE)

ABSTRACT:

The authors first give some data on the complex formation of ethanol amines and mention I. A. Korshunov and L. V. Lipatova (Ref 2) et al. They investigated the reaction of cadmium and ethanol amines within a very wide range. The investigation was carried out polarographically, with D. D. Deford's and D. N. Hume's (Ref 5) and also K. B. Yatsimirskiy's (Ref 9) computation methods being applied. Cd(NO₃)₂ (10-4 mole/1) was brought into reaction

with ethanol amines, while the concentration of mono- and diethanol amines was varied within 0.01 - 5.0 moles/1, and that of triethanol amines within 0.01 - 1.0 mole/1. The background used was 0.1 mole KNO₃. Half-wave potentials were measured by

means of the polarograph type SGM-8 of the zavod Geolograzvedka (Works of Geological Research). Table 1 gives the measuring results, table 2 the pH values. As is shown by figure 1, the process takes place in stages. Figures 2-4 give the J. Leden functions (Ref 10)

Card 1/2

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

The Polarographic Behavior of Metal Ions in the System Acetic Acid - Water

sov/79-29-1-3/74

The polarographic characteristics of the ions Cd⁺⁺, Zn⁺⁺, Ni⁺⁺ were investigated in the system CH₃COOH-H₂O. Diagrams were

plotted concerning the relation between diffusion current and composition of the solvent. It was shown that the variation of the constant of diffusion current is accompanied by clear curvatures in a section of the acid concentration corresponding to the formation of the hydrate complexes. This variation depends upon the composition of the solvent. There are 6 figures, 1 table, and 6 Soviet references.

ASSOCIATION:

Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED:

October 21, 1957

Card 2/2

sov/79-29-1-3/74 Migal', P. K., Agas'yeva, V. G. : HOHTUA The Polarographic Behavior of Metal Ions in the System Acetic Acid - Water (Polyarograficheskoye povedeniye ionov TITLE: metallov v sisteme uksusnaya kislota-voda) Zhurnal obshchey khimii, 1959, Vol.29, Nr 1, pp 8-11 (USSR) PERIODICAL: In the previous paper (Ref 1) the behavior of the ions Cd^{++} Zn++, Pb++ in the system formic acid - water was investigated. ABSTRACT: The present paper deals with the influence of the composition of the aqueous acetic solvent upon the polarographic diffusion current of simple metal ions. The physico-chemical properties of the binary system CH3COOH-H2O were investigated by A. A. Glagoleva, i.e. viscosity, conductivity, density, surface tension of this system. In this connection it was found that this system has an irrational character as far as on the isothermal lines of all investigated physico-chemical properties within a certain range of acid concentration the maxima and minima which point out to the formation of the hydrate complexes CH₃COOH₆H₂O and CH₃COOH₆2H₂O were determined. Card 1/2

RDP86-00513R001033800006-6

The Polarographic Behavior of Metal Ions in SCV/79-29-1-2/74 the System Formic Acid - Water proparties determined in the system HC00H-H₂O. There are 6 figures, 1 table, and 12 references, 8 of which are Soviet.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: November 21, 1957

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

The Polarographic Behavior of Metal Ions in the System Formic Acid - Water

SOV/79-29-1-2/74

already investigated viscosity, electric conductivity, surface tension, density and fusibility of the binary system HCOOH - $\rm H_2O$ (Refs 1-5). The analysis of the isothermal lines of the system permitted to determine the presence and the composition of two hydrates, i.e. HCOOH - $\rm H_2O$ and HCOOH - $\rm 2H_2O$.

Already A. M. Zaniko and F. A. Manusova (Ref 8) and other chemists (Refs 9-11) showed that the nature of the solvent exerts an important influence upon the polarographic diffusion current. The authors investigated the polarographic characteristic features of the ions Cd⁺⁺, Zn⁺⁺, Pb⁺⁺ in the system HCOOH-H₂O. The six diagrams show the dependence of the dif-

fusion current on the concentration of the metal ions. The following diagrams were obtained: the constant of the diffusion current in its dependence on the composition of the solvent. It was shown that the variation of this constant depends upon the composition of the solvent and that it is accompanied by two maxima in the concentration range corresponding to the above-mentioned hydrates. This agrees with the curves of viscosity, electric conductivity and other

Oard 2/3

SOV/79-29-1-2/74 Migal', P. K., Agas'yeva, V. G. AUTHORS: The Polarographic Behavior of Metal Tons in the System Formic Acid - Water (Polyarograficheskoye povedeniye ionov TITLE: metallov v sisteme murav inaya kislota voda) Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 3.7 (USSR) PERIODICAL: The polarographic investigations in mixed solvents are of great theoretical interest as far as the various physico-ABSTRACT: chemical transformations exert an influence upon the electric reduction process of ions in the media to be investigated. The application of binary fluid systems as solvents in the polarographic reduction of metal ions is expected to furnish valuable investigation material for the determination of the physico-chemical nature of the medium under investigation, especially in the case a chemical reaction is assumed to take place between the components of the system. In this connection the influence of the composition of the solvent upon the characteristic polarographic features (especially the diffusion current) of the simple metal ions was investigated in order to use the data obtained for the determination of the characteristics of the composition diagrams. A. A. Glagoleva had Card 1/3

-RDP86-00513R001033800006-6

SOV/78-4-8-23/43 The Polarographic Investigation of the Composition and the Stability of the Gadmium Thiosulphate Complexes in Aqueous Solution

formed. In the case of high ionic strength the complex $\left[\operatorname{Cd}(S_2O_3)_3\right]^{4-}$ is observed. The stoichiometric instability constant was computed according to various methods (Refs 6,7) and showed good agreement. The instability constant of $\operatorname{Cd}(S_2O_3)$ increases with increasing ionic strength. The constants for $\left[\operatorname{Cd}(S_2O_3)\right]^{2-}$ and $\left[\operatorname{Cd}(S_2O_3)_3\right]^{4-}$ pass a maximum at $\mu=1$. The thermodynamical instability constant (Table 3) is in agreement with the values found according to the solubility method (Ref 3). There are 2 figures, 3 tables, and 10 references, 5 of which are Soviet.

ASSOCIATION:

Kishinevskiy gosudarstvennyy universitet (Kishinev State

University)

SUBMITTED:

April 30, 1958

Card 2/2

SOV/78-4-8-23/43 5(2) Migal', P. K., Grinberg, N. Kh., Tur'yan, Ya. I. AUTHORS: The Polarographic Investigation of the Composition and the TITLE: Stability of the Cadmium Thiosulphate Complexes in Aquecus Solution (Polyarograficheskoye issledovaniye sostava i ustoychivosti tiosul'fatnykh kompleksov kadmiya v vodnom rastvere) Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 8, pp 1844-1848 PERIODICAL: (USSR) The solutions $Cd(NO_3)_2$ + $NaClO_4$ + $Na_2S_2O_3$ are investigated at ABSTRACT: different ionic concentrations which were kept constant in the individual experiments. In order to suppress the maximum 0.01% gelatin was added to the polarographically investigated solutions. Oxygen was removed by the passage of hydrogen. A calomel standard electrode served as comparison cathode. The polarographic measuring results are shown by table 1. The dependence of the potential of the semiwave on the logarithm of the concentration of the thiosulphate ion is shown by figure 1. A step-wise complex formation was observed which the other research workers (Refs 2,4) had neglected. With low ionic strength only the complexes $\left[\text{Cd}(s_2^{0_3})\right]$ and $\left[\text{Cd}(s_2^{0_3})_2\right]^{2^-}$ are Card 1/2

CIA-RDP86-00513R001033800006-6

FASF: 06/23/11:

sov/78-4-6-20/44

Investigation of the Composition and the Stability of the Complexes of Copper, Lead, and Zinc With Monoethanol-amine

of the half wave on the complex ions Cu^{2+} , Zn^{2+} , and Pb^{2+} , on the logarithm of the concentration as well as on the monoethanol-amine is given in figures 1 and 3. It was found that copper and zinc with monoathanol-amine form complex compounds with the coordination number p=4. The instability constants of the complexes $\left[\text{Cu}\left(\text{MEA}\right)_4\right]^{2+}$ and $\left[\text{Zn}\left(\text{MEA}\right)_4\right]^{2+}$ amount to $K_{\text{Cu}} = (3.6 \pm 0.7).10^{-16}$ and $K_{\text{Zn}} = (1.5 \pm 0.6).10^{-10}$. Lead forms with monoethanol-amine a complex with the coordination number p = 2 and the instability constant $K_{Pb} = (3.6 \pm 0.4).10^{-8}$.

The dependences of the amount of the diffusion current of Cu and Pb on the concentration of the monoethanol-amine are given in the figures 4 and 5. (MEA = monoethanol-amine). There are 5 figures, 1 table, and 8 references, 6 of which are Soviet.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State

University)

March 18, 1958 SUBMITTED:

Card 2/2

sov/78-4-6-20/44 5(4)Migal', P. K., Fushnyak, A. H. AUTHORS: Investigation of the Composition and the Stability of the Complexes of Copper, Lead, and Zinc With Monoethanol-amine TITLE: (Izucheniye sostava i ustoychivosti kompleksov medi, svintsa i tsinka s monoetanolaminom) Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 6, pp 1336-1340 PERIODICAL: (USSR) The composition and the instability constants of the ethanol-ABSTRACT: amine complexes of copper, zinc, and lead were determined by the polarographic method. The determinations were carried out with the polarograph SGM-8. The complex formation process of Cu(NO3)2 with monoethanol-amine was investigated in the concentration intervals amine 0.01 - 5.0 mol/1; $2n(NO_3)_2$ -0.05 - 1.0 mol/l; and $Pb(NO_3)_2 - 0.1 - 5.0 \text{ mol/l}$. The polarographic characteristics of the different elements (Cu2+, Zn2+ and Pb2+) in the case of monoethanol-amine being present are given in table 1. It was found that the potential of the half wave shifts towards the negative values with an increase of the concentration of the addend. The dependence of the potential Card 1/2

The Stability of the Citric-Acid Complexes of Some Metals 78-2-10/43 titrations the following stability constants were found: [NiCit] 1-, [NiCit2] 4- with lgK 4,99, 2,77 [cocit] 1-, [cocit] 4- with 1gK 4,41, 2,34 [ZnCit] 1-, [ZnCit2] 4- with 1gK 4,25, 1,91 [CdCit] 1-, [CdCit2] 4- with 1gK 3,38, 1,62 [NiCi] 2- = 1gK 5,27, [CdCi] 2- = 1gK 7,08, [ZnCi] 2- = 1gK 7,44, [CdCi] 2- = lgK 6,23 and [CuCi] 2- = lgK 13,22.

There are 7 figures, 2 tables, and 23 references, 5 of which are Slavic. Kishinev State University ' (Kishinevskiy gosudarstvennyy ASSOCIATION: universitet) April 2, 1957 SUBMITTED: Library of Congress AVAILABLE: Card 2/2

IA-RDP86-00513R001033800006-6 Linning C. K 73-2-10//3 Migal', P. K., Sychev, A. Ye. The Stability of the Citric-Acid Complexes of Sche Metals AUTHORS: (Ustoychivost' limonnokislykh kompleksov nekotorykh metallov). TITLE: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 2, PERIODICAL: pp. 314-324 (USSR) This work investigated the stability constants of the bivalent metals Ni2+, Co2+, Zn2+, Cd2+, Cu2+ with citric acid. The potentiometric method (pH) was employed for determining ABSTRACT: the stability constant. According to their stability in an acid medium the metals are to be arranged in the following order: Cu > Ni > Co > Zn > Cd. The influence of the above-mentioned ions upon citric acid in a neutral or alkaline medium is to be expressed by the following equation: M^{2+} + Cit⁴ \longrightarrow MCit². The two- or four-fold excess of citric acid in relation to the metal-ions does not influence the stability constant. The stability constant of the complexes was calculated from the titration curves in the ratio metal--ion : addendum = 1 : 1. The third dissociation constant of citric acid K₃ = 3,24.10⁻⁶ was used in the calculation of the stability constant. On the basis of the potentiometric Card 1/2

APPROVED FOR RELEASE: 06/23/11; CIA-RDP86-00513R001033800006-6

Physico-Chemical Investigations Concerning the Complex--Formation of Zinc, Cadmium and Copper With Sodium Citrate in an Aqueous Medium. 78-2-9/43

proceeds through a partial dissociation of hydrogen from the OH of the citrate. In acid solutions these metals also form complexes of the type $\left[\text{MCit}\right]^{1}$. In the system 2^{-1} Concentrated solutions a complex metal: citrate = 1:2 also forms. There are 7 figures and 11 references, 5 of which

ASSOCIATION:

Kishinev State University

(Kishinevskiy gosudarstvennyy

universitet)

are Slavic.

SUBMITTED:

April 2, 1957

AVAILABLE:

Library of Congress

Card 2/2

Midali P R 70-2-9/43 Migal', P. K., Sychev, A. Ya. AUTHORS: Physico-Chemical Investigations Concernate the Domplex--Formation of Zinc, Cadmium and Copper With Sodium Citrate ·TITLE: in an Aqueous Medium (Fiziko-khimicheskoye issledovaniye kompleksoobrazovaniya ionov tsinka, kadmiya, medi s limonnokislym natriyem v vodnoy srede). Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 2, PERIODICAL: pp. 309-313 (USSR). The complex-formation in the system ${\rm ZnSO_4^{-C}6^H5^07^{Na}3}$, ${\rm CdCl_2^{-}}$ $-c_6^{\rm H}_5^{\rm O}_7^{\rm Na}_3$ and $cuso_4^{\rm -}c_6^{\rm H}_5^{\rm O}_7^{\rm NO}_3$ in an aqueous medium was in-ABSTRACT: vestigated by the methods with electrolytic conductivity and potentiometry /pH/. According to the results with electrolytic conductivity in diluted solutions (0,01 - 0,1 mol/1) the complexes metal: addendum = 1: 1 exist. According to the determination by the optical density in the system ${\tt CuSO}_4$ - $^{\text{C}}_{6}^{\text{H}}_{5}^{\text{O}}_{7}^{\text{Na}}_{3}$ and at pH = 4 the complex copper : citrate = 1 : 1 exists. In weakly-acid solutions the complex-formation in the systems zinc-citrate, cadmium-citrate, copper-citrate Card 1/2

6,5

CIA-RDP86-00513R001033800006-6 MIGAL!, P.K.; SYCHEV, A.Ya. Physicochemical analysis of zinc, cadmium, and copper ion complex formation with sodium citrate in aqueous media. Zhur. neorg. khim. (MIRA 11:4) 3 no.2:309-313 F 158. 1. Kishinevskiy gosudarstvennyy universitet. (Sodium citrate) (Complex compounds)

MIGAL', P.K.; SYCHEV, A.Ya. Stability of some metal citrate complexes. Zhur. neorg. khim. 3 no.2:314-324 1 158. (MIRA 11:4) 1. Kishinevskiy gosudarstvennyy universitet.
(Complex compounds) (Ci (Citrates)

CIA-RDP86-00513R001033800006-6

CIA-RDP86-00513R001033800006-6 MIGAL! P.K. MIGAL!, P.K.; TIMOFETEVA, O.A. Making water glass from tripoli earth by the wet method. Khim. nauka i prom. 2 no.4:525-526 157. (MIRA 10:11 (MIRA 10:11) 1. Moldavskiy filial AN SSSR. (Soluble glass)

-RDP86-00513R001033800006-6

MIGHL, P.K.

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7189.

: P.K. Migal', V.S. Starchevskiy. Author

: Kishinev University. Inst

: Density and Surface Tension of System Methyl Alcohol -Title

Monoethanolamine.

Orig Pub: Uch. zap. Kishinevsk. un-ta, 1957, 27, 135-140.

Abstract: The density and surface tersion (6) of the system methyl alcohol monoethanolamine (I) were studied at 0°, 10° and 20°. A compression of the system takes place when the components are mixed, which is maximum at 33 mol. ## of I; this indicates the formation of the chemical compound 2CH3OH.H_NCH_CH_OH. The isotherms of δ also in-

dicate the formation of the dissociating compound.

: 1/1 Card

..54<u>-</u>

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

MIGHT, RK.

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria,

Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1957, 7179.

Author : P.K. Migal', D.P. Belotskiy.

: Kishinev University. Inst

: Viscosity and Surface Tension in System Ethyl Alcohol -Title

Aniline - Chloroform.

Orig Pub: Uch. zap. Kishinevsk. un-ta, 1957, 27, 119-125.

Abstract: The viscosity and surface tension (o) were measured at 0° to 25° in the termsry system C₂H₅OH (I) - C₆H₅NH₂ (II) - CHCl₃ (III), in which III is an indifferent component. The results were treated by the method of divergences from additivity (N.A. Izmaylov, Zh. fiz. lhimii, 1951, 25, 1070). It seems that a compound of I and II of the composition 1: 1 is produced in the system at the expense of a hydrogen bond. The maximum dis vergence of 6 from the additivity coincides with the composi-

Card : 1/2 -52~

USSR / Physical Chemistry - Surface Phenomena, Adsorption,
Chromatogrpahy, Ion Interchange.

Abs Jour : Ref Zhur Khim., No.1, 1958, No. 613.

Abstract : nal to the initial solution concentration.

CIA-RDP86-00513R001033800006-6

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6</u>

Micac, L.K.

USSR / Physical Chemistry - Surface Phenomena, Adsorption, Chromatography, Ion Interchange.

B-13

Abs Jour

: Ref Zhur Khim., No.1, 1958, No. 613.

Author

: P.K. Migal', T.V. Gorenko,

Inst

: Kishinev University.

Title

: Study of Dynamic Adsorption of Alcohols from Solutions.

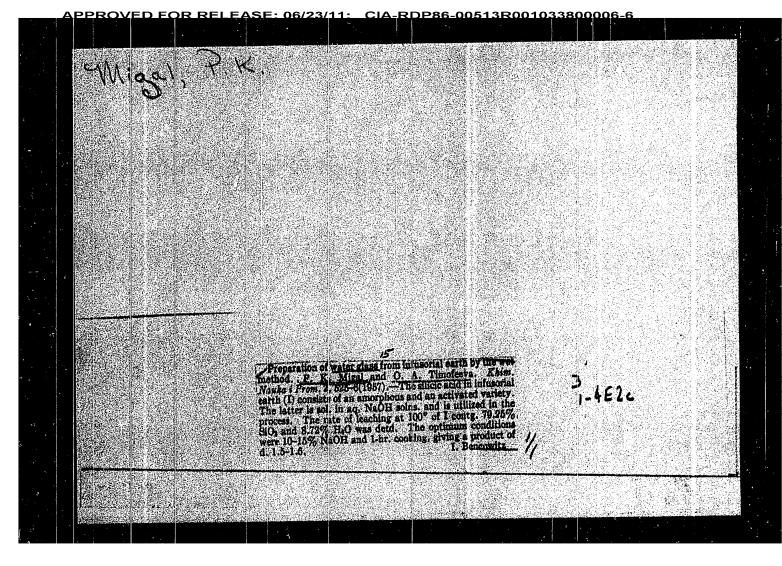
Orig Pub

: Uch. zap. Kishinevsk. un-ta, 1957, 27, 111 - 118.

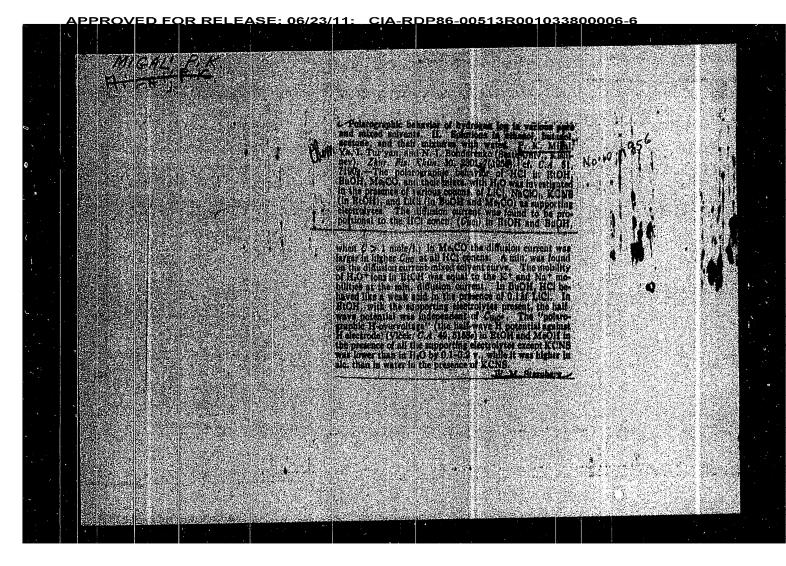
Abstract

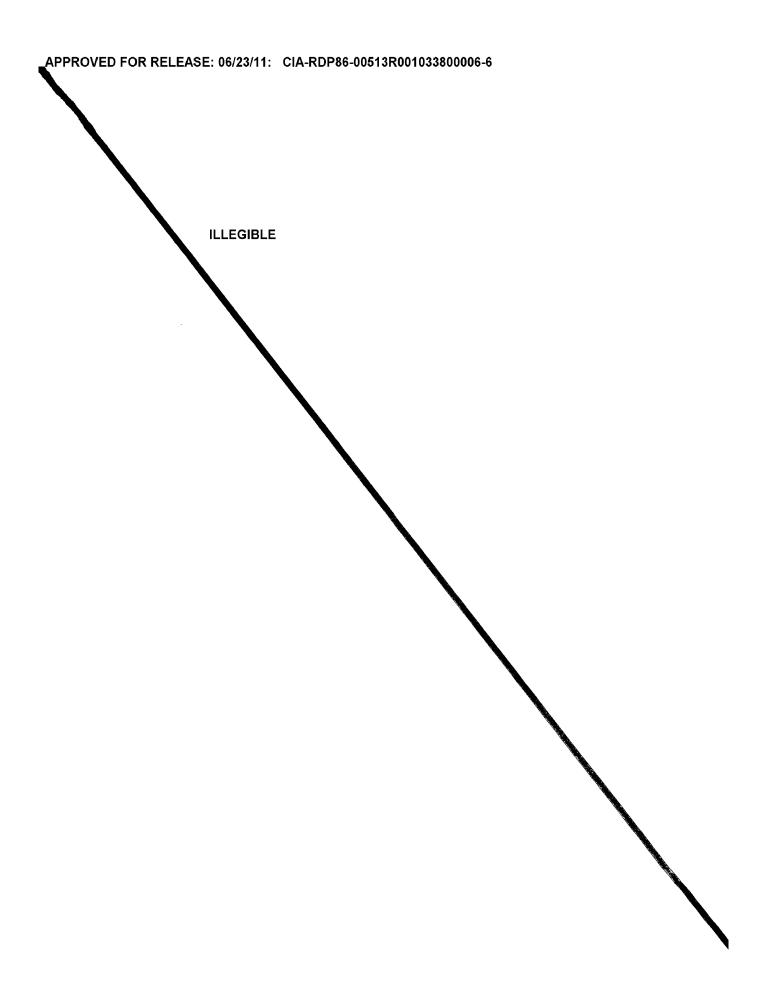
: Adsorption of isobutyl (I) and isoamyl (II) alcohols from toluene solutions on active aluminum oxide was studied under static and dynamic conditions. The solution composition was determined by the refractometric method. The static sorbent activity for I reaches 5.8 . 10⁻⁴ and that for II reaches 6.3 . 10⁻⁴ mole per g. Shilov's equation is applicable to the dynamic adsorption, as well as to the vapor adsorption; the filter work factor is inversely proportio-

Card: 1/2

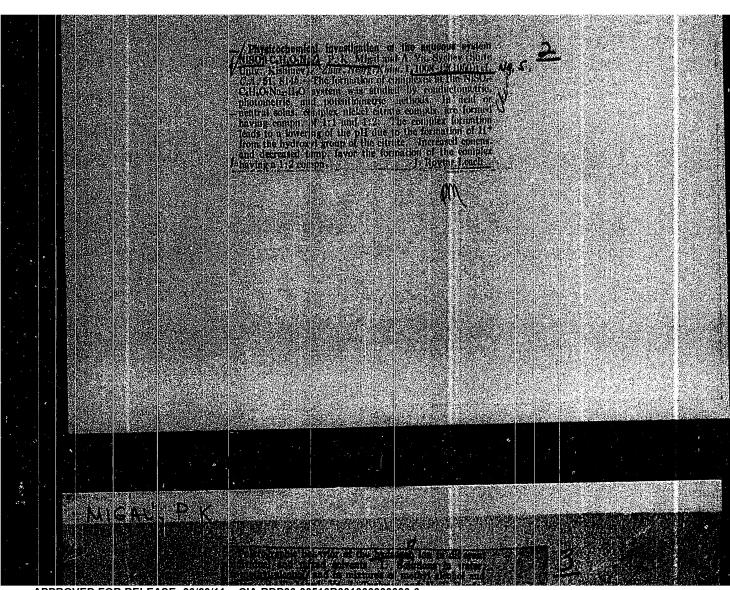


PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6 MIGAL', P.K.; SYCHEV, A.Ya. Physicochemical study of the system: cobaltous chloride - sedium citrate in aqueous medium. Zhur.neorg.khim. 1 no.4:726-732 Ap (MLRA 9:10) 156. 1.Kishinevskiy gesudarstvennyy universitet. (Cebalt chlerides) (Sedium citrate)





APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

MIGAL, P.K.

USSR/Physical Chemistry. Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14706

P. K. Migal', A. Ya. Sychev. Author

Inst

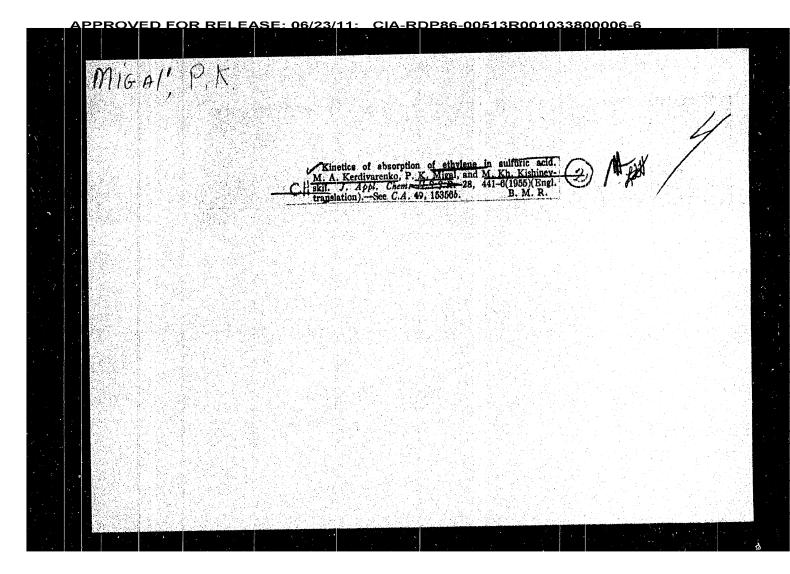
: Physical-Chemical Study of System Cobald Chloride -Title

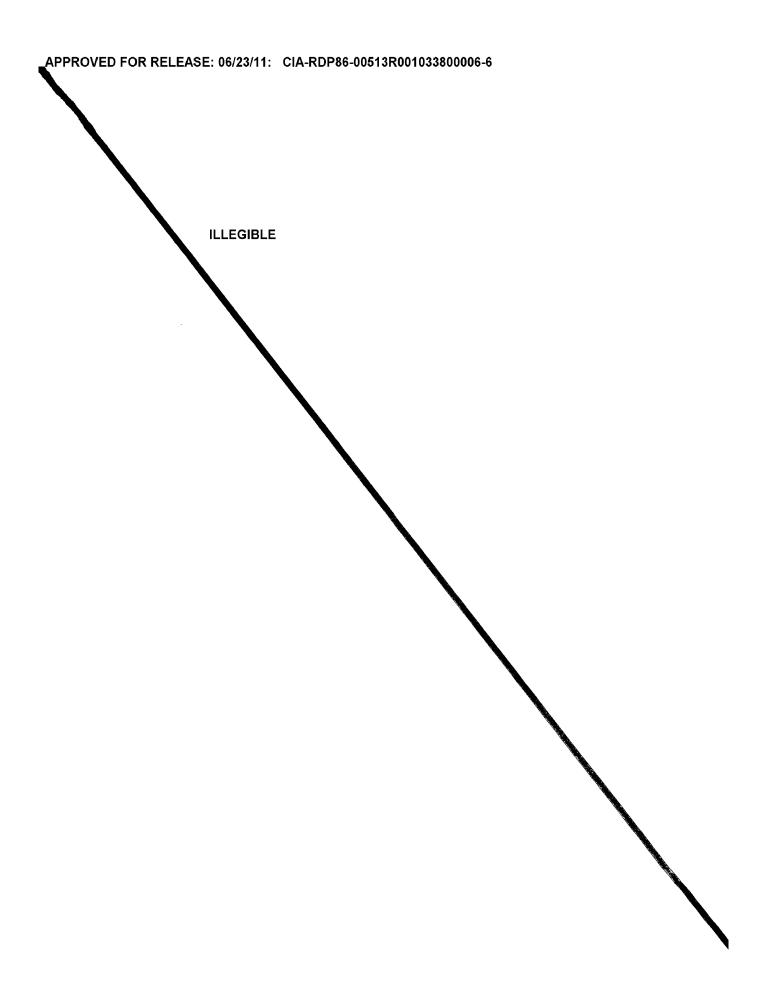
Sodium Citrate in Aqueous Medium

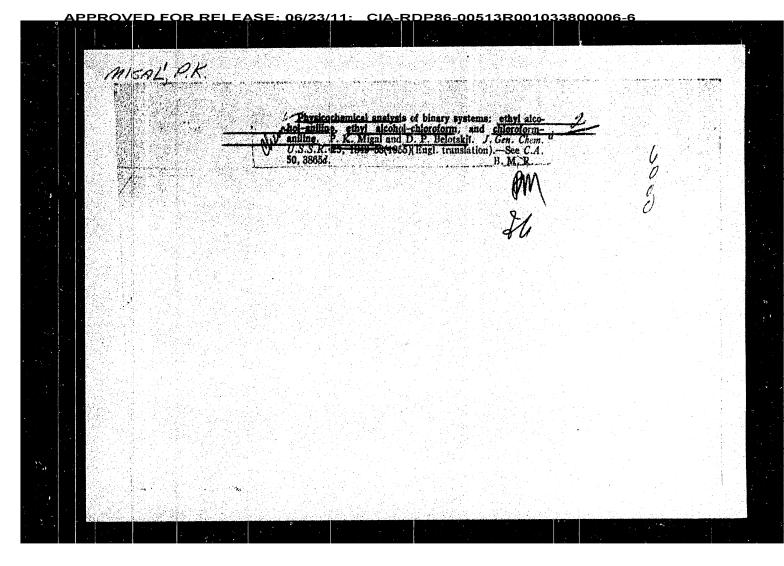
Orig Pub: Zh. neorgan. khimii, 1956, 1, No 4, 726-732

A Physical-chemical study of the system cobalt chloride Abstract: (I) - sodium citrate (II) in aqueous medium was carried out. The specific electric conductivity 9 of the system I-II was measured at 15, 25 and 50° in the range of concentrations from 0.01 to 1.00 M. The isotherms of pass through a sharp minimum at the relation between I : II = 1 : 1, the breaking angle of the isotherm becomes sharper with the temperature rise. The isotherm minimum and the rectilinearity of both their branches is characteristical of concentration from 0.01 to 0.1 M; also a

Card 1/2







D FOR RELEASE: 06/23/11:

M.9+1' P.K.

USSR/Thermodynamics - Thermochemistry. Equilibria.

B-8

Physical-Chemical Analysis. Phase Transitions.

: Referat Zhur - Khimiya, No 6, 1957, 18523 Abs Jour

Author : P.K. Migal!, N.G. Glebko, A.I. Rastrenenko.

Inst : Chernovtsy University.

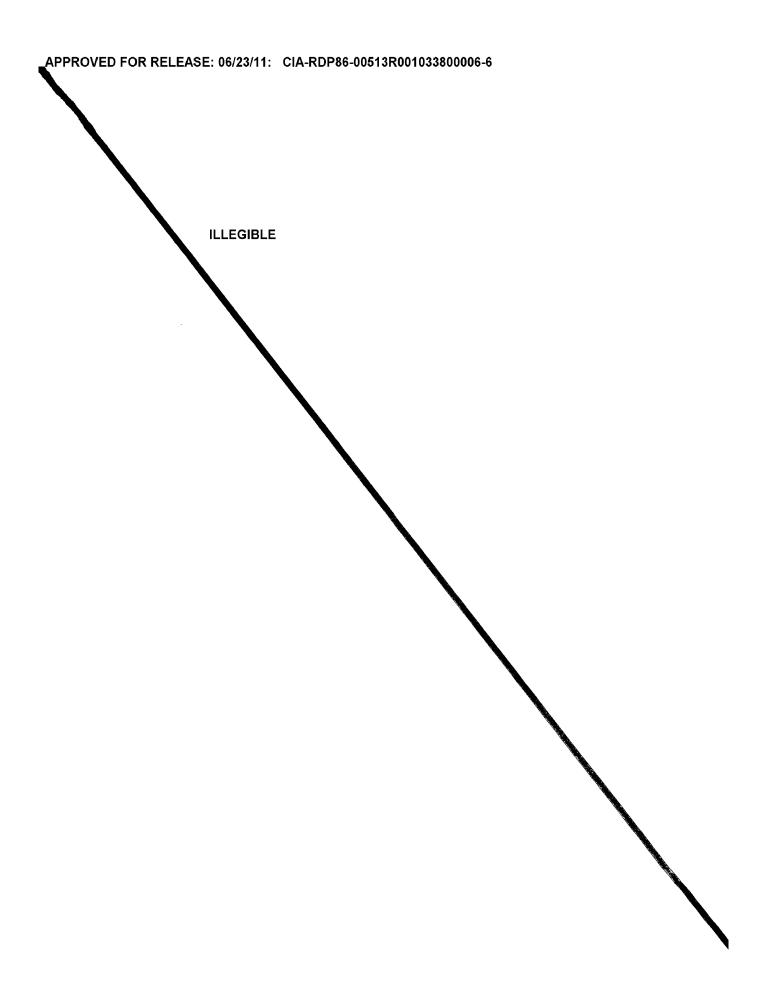
Title : Study of Aniline - n-Butyl Alcohol System by Cryoscopic Method.

Orig Pub

: Nauch. zap. Chernivets'k. un-tu, 1955, 11, No 2, 3-12

: Cryoscopic measurements of solutions of aniline (I) and Abstract nobutyl alcohol (II) in benzene with the content of I increasing by 10 mol % from 0 to 100 mol % were carried out. The deviations of the experimental temperature depression of freezing from the computed in accordance with the solution composition as a sum of depressions by I and II were determined for total molalities of 0.6, 0.8, 1.0 and 1.2. It was shown that the maximum of deviations was near the composition 50% of I and 50% of II. It was surmised that there existed a compound of I and II of the

Card 1/1 - 202 above composition.



MIGAL

AID P - 3417

Subject

: USSR/Chemistry

Card 1/1

Pub. 152 - 2/18

Authors

Kerdivarenko, M. A., P. K. Migal' and M. Kh.

Kishinevskiy

Title

: Kinetics of absorption of ethylene by sulfuric acid

Periodical

5, 459-466, : Zhur. prikl. khim., 28,

Abstract

: The rate of absorption of ethylene was studied at 9, 20 and 40°C with sulfuric acid of 0 to 95%.

With sulfuric acid of 80% and higher concentrations, the reaction rate increases more rapidly than it should

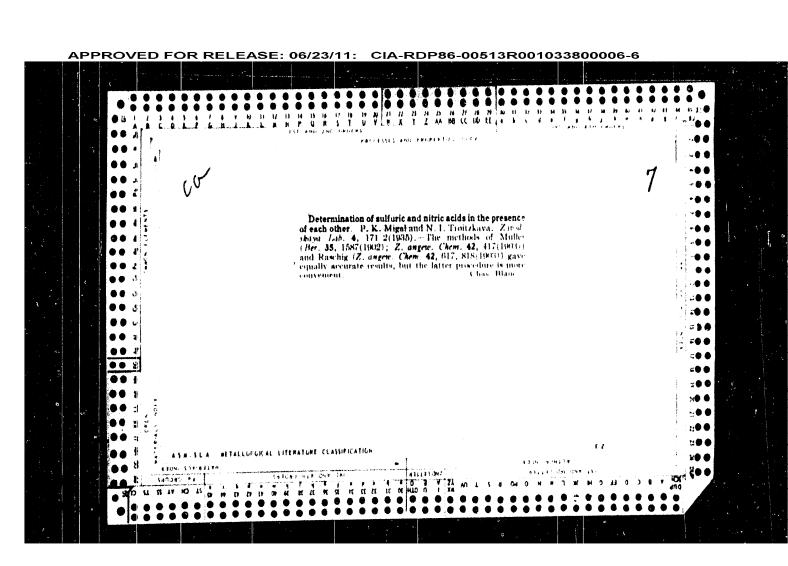
according to the kinetic equation. This is ascribed to an increased hydration of H2SO4. Four tables, 7 diagrams, 7 references, 3 Russian (1944-54).

Institution: Laboratory of Physical Chemistry of the Kishinev

State University

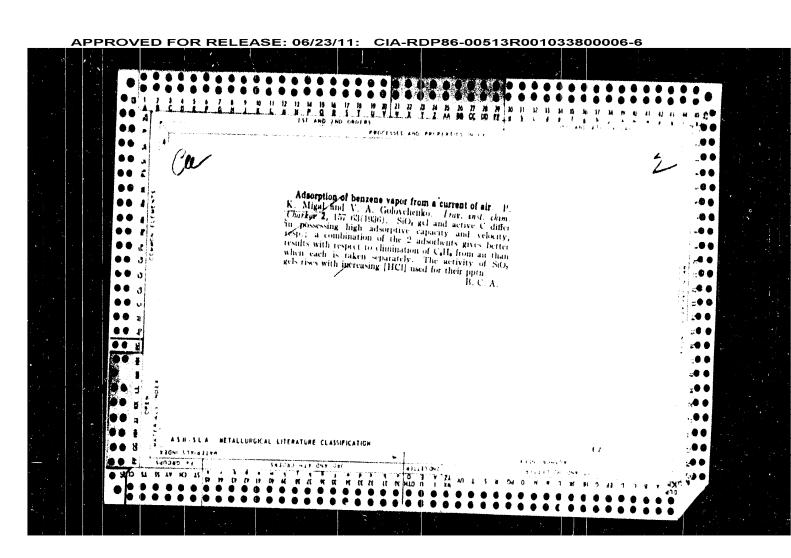
Submitted

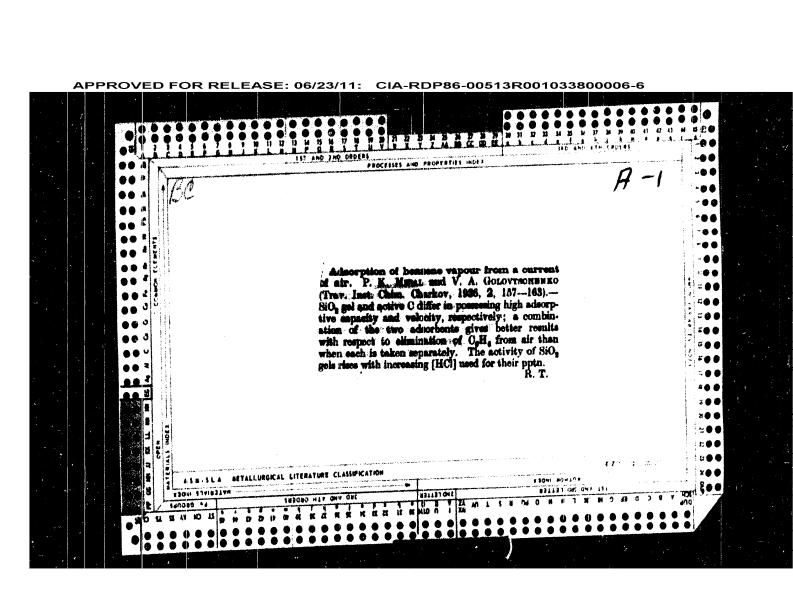
: F 3, 1954

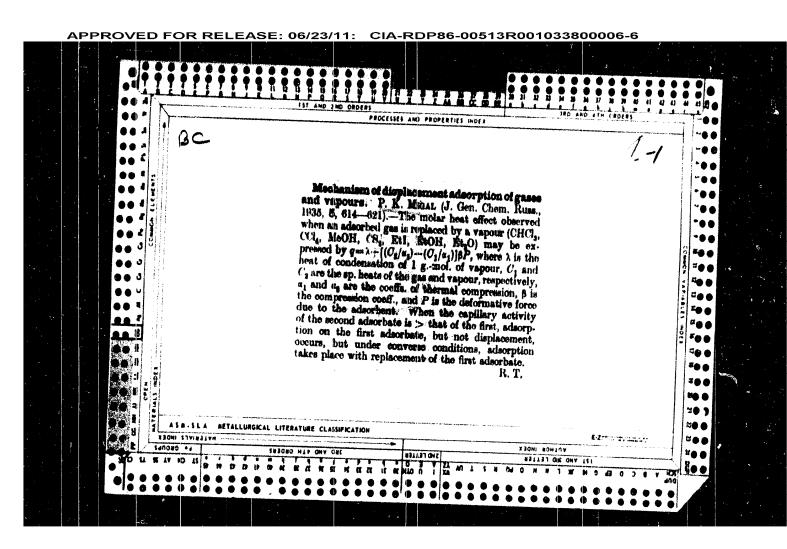


APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6 Mechanism of reciprocal adsorption of gases and vapors P. R. Migal. J. Gen. Chem. (U.S. S. R.) 5, 614–21 (1915); cf. C. A. 29, 5000. The molar heat of adsorption, q_{M_1} of a vapor on a free surface, is given by the equation $q_M = (1.75 \lg T + i - \lg P_i)$ 4.571 $T + (C/\alpha)AP_i$, where T is temp., i the Nernst const., P_i pressure of the said, vapor, C molar heat capacity at T_i α and B are coefficient of thermal and mech. compression and P is the mech. Force of compression. The heat effect of vapor-vapor adsorption is given by the expression $q_M = 4.571 T \lg (P_i/P_i) + ((C_i/\alpha_i) - (C_i/\alpha_i))dP_i$, where the subscripts 1 and 2 refer to the 2 vapors involved. $\begin{array}{l} (P_{t_i}/P_{t_i}) + ((C_i/\alpha_i)) \simeq (C_i/\alpha_i) III, \text{ where one simple } 1 \text{ and } 2 \text{ refer to the } 2 \text{ vapors involved}. \quad \text{The heat effect of gas-vapor adsorption is given by the expression } q_0 = (1.76 \lg T + i - \lg P_i) 4.57 l T + ((C_i/\alpha_i) - i C_i/\alpha_i)) l P_i \\ & \text{S. I. Midorsky} \end{array}$ # A n n n n n n

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6 PROCESSES AND PROPERTIES INCH. Heat of adsorption of vapors from an air current on active carbon at 24°. P. K. Migal. J. Gen. Chem. (U.S. S. R.) 5, 197-210(1935).— The dynamic method was assed in studying heat of adsorption of org. vapors on a non degassed surface of active charcoal. The vapors studied were: CH₁Cl, CHCl₁, CCl₁, CH₁, CS₂ and CH₂OH. It was found that for any given vapor nol, heat of adsorption is independent of its concen. in the air. The mod heats of adsorption in the order of compds, given aloge are: 19600, 11,500, 11,600, 9800, 9800, 1050 and 9800. -00 **z● ●** =00 **₹0 20 €** S. L. Madorsky r \varTheta 🔴 **∷● ● :00** :00 ... £ 2







APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6 PROCESSES AND PROPERTIES MICE 2-1 Heat of adsorption of vapours from a current of air by active charcoal at 24°. P. K. Minal (I. Gen. Chem. Russ., 1935, 8, 197—210).—The heat (q)-time curves, after a short induction period, are rectilinear for McCl, CHCl, McI, CS₃, and McOH corresponding with $q = kcv(t-t_0)$, where c is the conen. of vapour, v its rate of flow, and t_0 is the time at the end of the induction period.

R. T. × #**0**

CIA-RDP86-00513R001033800006-6 MIGAL', O.K. [Myhal', O.K.], student biolog.fakul'teta; TUL'CHINSKAYA, V.P. [Tul'chyns'ka, V.P.], nauchnyy rukovoditel', prof. Effect of plant extracts on the growth of bacterial cultures. Pratsi Od.un. Zbir.stud.rob. 149 no.5:169-172 '59. (MIRA 13:4) 1. Chlen-korrespondent AN USSR (for Tul'chinskaya). 2. Odesskiy gosudarstvennyy universitet. (EXTRACTS) (BACTERIA)

ARINSHTEYN, A.I., kand. sel'skokhoz, nauk; slicht, h.c.

Effect of the quantity of hemp poller grains on their germination, the growth of pollen tubes, and the yield of hybrid seeds. Agrobiologiia no.1:151-153 Ja-F '65. (MIRA 18:4)

1. Vsesoyuznyy panchno-issladoratel'skiy institut lubyanykh kul'tur, Glukhov.

MIGAL*, N.K., prof. dokent flatke-matem. nack Comments on 1.8. Maria's interior Method for studying the figure of the surth without recourse to the normal field." Tzv. vys. usheb. zev.; gead. i aspof. no.68141-144 163 (MIRA 17:7) 1. L'vovskiy politekbaicheskiy unsulbut.

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6</u> MIGAL!, N.A., prof. dikt " fiziks-metem, and: Comments on dura to inte stime. Method for studying the figure of the samily without recovers to the normal field. law. vys. upheb. zer.; geni. i neret. no.631/1-1/44 163 (MIRA 17e7) 1. Livovskiy politekknicheskiy costitut.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

Chronicle

BOV/6-60-1-16/17

discussed the development of methods of measuring lengths of distances. V. I. Rudskiy reported on methods used in the realization of geodetic basic work in China and Syria. The Conference was attended by representatives of other schools of higher learning and geodetic organizations of the L'vovskiy ekonomicheskiy rayon (L'vov Economic Rayon).

Card 2/2

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

· MIGAL, N.K.

3(4)

None Given

AUTHOR:

Chronicle

PERIODICAL:

Geodeziya i kartografiya, 1960, Nr 1, pp 78-79 (USSR)

ABSTRACT:

The 18th Scientific-technical Conference was held at the L'vovskiy politekhnicheskiy institut (L'vov Polytechnic Institute) from October 26 to 28, 1959. It was devoted to the 20th anniversary of the reunion of the West Ukrainian region with the USSR. 9 reports were delivered in the geodetic section: N. K. Migal spoke on the "Generalized Formula of the Theory of the Earth's Shape" T. N. Chalyuk presented formulas for the accuracy predetermination in the surveying of technical buildings. I. F. Monin described his method of determining plumb-linel deviations in the mountains. A. S. Lisichanskiy presented a variant of a new classification of cartographic .v projections. Yu. N. Pankrat'yev dealt with photographic theodolite surveys of the Northwest Chink on the Ust'yurt Plateau. V. I. Kibal'nikov spoke on "Application of Photogrammetry in Geology". A. Ye. Sumarokov reported on the contents of the manual for geodetic professions concerning the organization and economy of topographic-geodetic work. O. S. Makar

sov/6-60-1-16/17

Card 1/2

Or determining the Earth's shape ...

\$/035/61/000/005/037/042 A001/A101

gravity force on the geoid is expressed as follows:

$$g = g_{s} \left[1 + \beta \sin^{2} u + \left(\frac{1}{4} e^{2} \beta - \beta_{1} \right) \right] \sin^{2} 2u + \Delta g,$$

$$g = \frac{a \omega^{2}}{g_{s}}.$$

Here a is semimajor axis; $S(\psi)$ is Stokes function; d \widetilde{U} is surface element of the unit sphere; ω is angular velocity of Earth rotation; e, i are first and second eccentricities of ellipsoid; u is reduced latitude; λ is longitude; A, B, C, are constants characterizing the orientation of ellipsoid; D is constant characterizing its size. Analogous formulae are obtained for A as a function of geographic and geocentric latitudes. Numerical values of coefficients for Krasovskiy's ellipsoid and Gel'mert formula are calculated. It is mentioned that in the article by D, V, Zagrebin (Trudy ITA, 1952, no. 1) on page 114 and the subsequent ones, function ψ $\varphi(\psi)$ entering all the functions of Zegrebin's final formula was determined incorrectly.

M. Yurkina

[Abstracter's note: Complete translation]

Card 2/2

S/035/61/000/005/037/042 A001/A101 .3,9000 AUTHOR: Migal', N.K. On determining the Earth's shape without using the normal gravita-TITLE: tional field Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 30, abstract 5G198 ("Nauchn. zap. L'vovsk. politekhn. in-t.Ser. geod.", PERIODICAL: 1959, no. 5, 79 - 86) On the basis of his earlier work (Nauchn. zap. L'vovsk. politekhn. in-t. Ser. geod., 1949, no. 15, 1) the author derived the following formula for the difference between the regularized geoid and ellipsoid with a relative error $-h = \frac{a}{4\pi g_{s}} \int \Delta g S(\psi) d\sigma + a \left[\left(\beta - \frac{5}{2} q + \frac{1}{2} i^{2} + \frac{18}{7} q t^{2} - \frac{1}{2} i^{2} + \frac{1}{2} i^{2}$ of the order of oblateness $-l^2\beta + \frac{3}{7}e^2\beta - \frac{12}{7}\beta_1 - \frac{5}{7}l^4$ sin² u + $+\left(\frac{1}{6}i^2\beta+\frac{4}{3}\beta_1-\frac{1}{3}e^2\beta-\frac{1}{24}i^4\right)\sin^4u\Big]+$ 22400

MIGAL!, N.K. Secular wandering of the poles of rotation of the deforming earth.

Nauch. zap. LPI. Ser. geod. no.4:3-14 158. (MJRA 14:7)

(Earth--Rotation) <u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6</u>

MICAL, N.K.

14-1-318

Translation from: Referativnyy Zhurnal, Geografiya, 1957, Nr 1, p. 27 (USSR)

AUTHOR:

Migal', N. K.

TITLE:

Ocean Transgression and Regression (Otnositel'no transgressiy i

regressly morya)

PERIODICAL: Nauch. zap. L'vovsk. politekhn. in-t, 1955, Nr 33, pp. 87-90

ABSTRACT:

A map showing the present relief of the earth was prepared taking into account the respective ocean levels of the contemporary and Paleogene eras (Ref. 317). This map indicates the outline of Paleogene oceans. M. M. Strakhov's map in Osnovy istoricheskoy geologii (Basis of Historical Geology, M.-L, Gosgeolizdat, 1948) is shown for comparison. The location of lands and oceans coincides almost completely on both maps, although the author did not reduce the contemporary relief of the Earth to the scale of the relief of the Paleogene era.

ASSOCIATION: L'vov Polytechnical Institute (L'vovsk. Politekhn . in-t.)

Card 1/1

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6</u>

MIGAL, N. K.

"Determination of Latitude and Azimuth From Two Observations of the Same Stars' Nauch. zap. Lvovsk. politekhn. in-ta, 18, No 2, 1954, 71-74

A case in which the cooridinates of the stars are unknown and the time of observation not recorded is applied to determination of the local latitude and azimuth from two observations. The values sought are obtained from solutions of two spherical triangles connecting the pole of the universe, the zenith, and the star. An example is given by using a 20" theodolite. (RZhAstr, No 10, 1955)

SO: Sum - No. 787, 12 Jan 56

<u> APPROVED FOR RELEASE: 06/23/11: _CIA-RDP86-00513R001033800006-6</u>

ALCHI N'K'

14-1-317

Translation from: Referativnyy Zhurnal, Geografiya, 1957, Nr 1, p. 27 (USSR)

AUTHOR: Migal', N. K.

TITLE: The Configuration of the land surface and Geotectonics (Figura zemli i geotektonika)

PERIODICAL: Nauchn. zap. L'vovsk. politechn. in-ta, ser. geod., 1954, Nr 2, pp. 94-123

ABSTRACT: It is pointed out that one of the main causative factors in ocean regressions and transgressions is soil denudation and the resulting changes in the solid part of the earth crust. The evolution of the Earth since the Paleogene period is estimated. A paleogeographic map of this period is given with figures indicating how much the present ocean level should be raised or lowered to approximate that of the Paleogene period.

ASSOCIATION: L'vov Polytechnical Institute (L'vovsk Politekhn.in-t.)

Card 1/1

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6</u>

MIGAL', N. K.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

None

Migal', N. K.

Title of Work

"The theory of Common Determination of the Figure and Dimensions of the Earth" Rominated by

L'vov Polytechnic Institute

so: W-30604, 7 July 1954

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

MIGAL', N. K.

"Theory of the Joint Determination of the Earth's Figure and Dimensions." Sub 28 Feb 51, Geophysics Inst Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

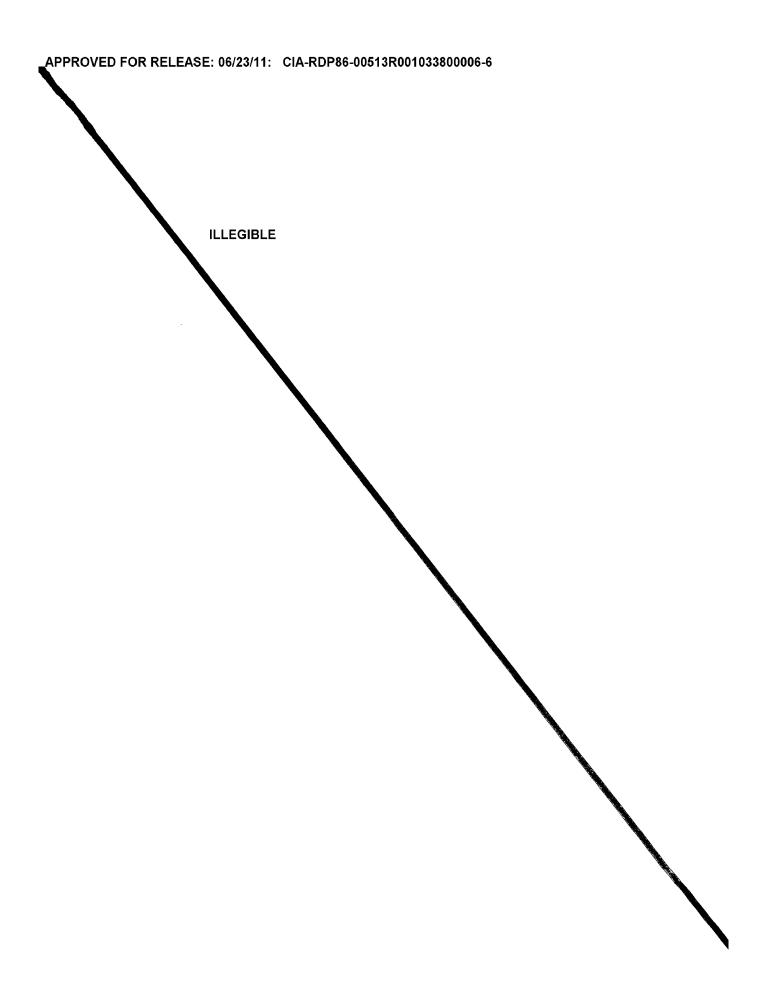
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- 1. MIGAL', N.
- 2. USSR (600)

"Choice of the equatorial constant in the normal formula for gravity", Astron. Zhur. 16, No 2, 1939. Gravimetric Observatory, Academy of Science USSR, Poltavo.

9. Report U-151:, 23 Odt 1951



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6 MIGAL, U. <u>Migal, N.</u> "On the determination of the Figure of the decid from Amenalias of the Herisontal Tradient of Terrestrial Travity. Dollary West. Hask 3.3.5.5.1 Mingree-Mosecu, vol. 16, 16, 1, 1137, 11 - 52-50.

MIGAL', H.D. Evaporation of water and the viability of hemp pollen. Fiziol.rast. 12 no.6:1090-1092 N-D '65. (MIHA 18:12) 1. Vsesoyuznyy nauchno-insledovatel'skiy institut lubyanykh kul'tur, Glukhov, Sumskaya oblast'. Submitted November 22, 1964.

MIGAL!, I.A., wrach

Clinical biochemical Armileis as indices of the effectiveness of radical treatment of chronic supportative dispares of the lungs. Shor. nauch, rab. Sar. gos. ned. inst. 44:275-480 [64.]

1. Iz kafedry fakul!totskoy khirurgii lechebnogo fakul!tota (zav. - prof. l.M. fotts [deceased]) i kafedry gospital!ncy terapii lechebnogo fakul!tota (zav. - prof. l.S. Shvarta) Saratovskogo meditsinskogo instituta (rekter - dotsent N.R. Ivanov).

KUNITSINA, T. A.; MIGAL, L. A. Significance of thoracotomy in the diagnosis and treatment of pulmonary and extrapulmonary surgical diseases. Grud. khir. no.5: (MIRA 15:2) 75-81 '61. 1. Iz fakul tetskoy khirurgicheskoy kliniki lechebnogo fakul teta (dir. - prof. I. M. Popov'yan) Saratovskogo meditsinskogo instituta (dir. - dotsent N. R. Ivanov) (CHEST-SURGERY) (LUNGS-DISEASES)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

MIGAL, KG.

LEBEDEV, S.I., prof., doktor biolog.nauk, otv.red.; KOVBASYUK, S.M., dotsent, kand.istor.nauk, red.; PAZYUK, L.I., dotsent, kand.geologo-mineral. nauk, red.; KIRILLOV, Ye.A., prof., doktor fiziko-matemat.nauk, zasluzhennyy deyatel nauki USSR, red.; TSESEVICH, V.P., prof., doktor fiziko-matemat.nauk, red.; LEONOV, I.G., dotsent, kand.istor. nauk, red.; VOROB YEV, A.I., prof., doktor biolog.nauk, red.; MOROZOV, GAVRILOV, N.I., prof., doktor fiziko-matemat.nauk, red.; MOROZOV, A.A., prof., doktor khim.nauk, red.; DANILENKO, K.Ye., dotsent, kand.filolog.nauk, red.; MIGAL K.G., dotsent, kand.istor.nauk, red.; SMIRNOV, A.M., dotsent, kand.geograf.nauk, red.; BABICH, N.M., tekhn.red.

[Scientific yearbook for 1956] Nauchnyi ezhegodnik 1956 g. Odessa, (MIRA 12:4)

1. Odessa. Universitet. 2. Deystvitel nyy chlen Ukrainskoy Akademii sel skokhoz.nauk, zaveduyushchiy kafedroy fiziologii rasteniy Odesskogo gosudarstvennogo universiteta im. I.I.Mechnikova (for Lebedev). 3. Zagosudarstvennogo universiteta im. I.I.Mechnikova (for Kovbasyuk). 4. Zaveduyushchiy universiteta im. I.I.Mechnikova (for Kovbasyuk). 4. Zaveduyushchiy universiteta im. I.I.Mechnikova (for Kovbasyuk). 4. Zaveduyushchiy universiteta im. I.I.Mechnikova (for Kovbasyuk).

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001033800006-6

L 10054-63 ACCESSION NR: AR3000383

made of Sn, Pb, and In. Electrodes of Aquadag and silver turned out to be non-ohmic. It has been established that the specific resistivity of layers of non-ohmic. It has been established that the specific resistivity of layers of thickness 0.6 Mu is independent of the thickness. This is attributed to the thickness increase in the dimensions of the crystalline grains with increasing thickness increase in the dimensions of the production of surface absorption states by the of the layer, and also to the production of surface absorption states by the sorbed oxygen. The specific resistivity of layers of thickness less than 0.5 Mu sorbed oxygen. The specific resistivity of layers of thickness less than 0.5 Mu sorbed oxygen. On the basis of the values of the coefficients of transmission indium phosphide. On the basis of the values of the coefficients of transmission and reflection of light with wavelengths 0.7 to 1.3 micron, spectral absorption and refraction characteristics were obtained. The width of the forbidden zone was determined from the edge of the principal absorption and was found to be 1.27 ev at room temperature. The value of the refractive index at wavelengths greater than 1.3 micron is 3.9. Yu. Ukhanov.

DATE ACQ: 14May63 ENCL: 00 SUB CODE: PH

cs//ja/

EWT (1)/BDS/EFC (b)-2-AFFTC/ASD/ESD-3--IJP(C)
ACCESSION NR: AR3000383 ACCESSION NR: AR3000383

SOURCE: RZh. Fizika, Abs. 4E487

AUTHOR: Kot, M. V.; Migal'. EV. P.

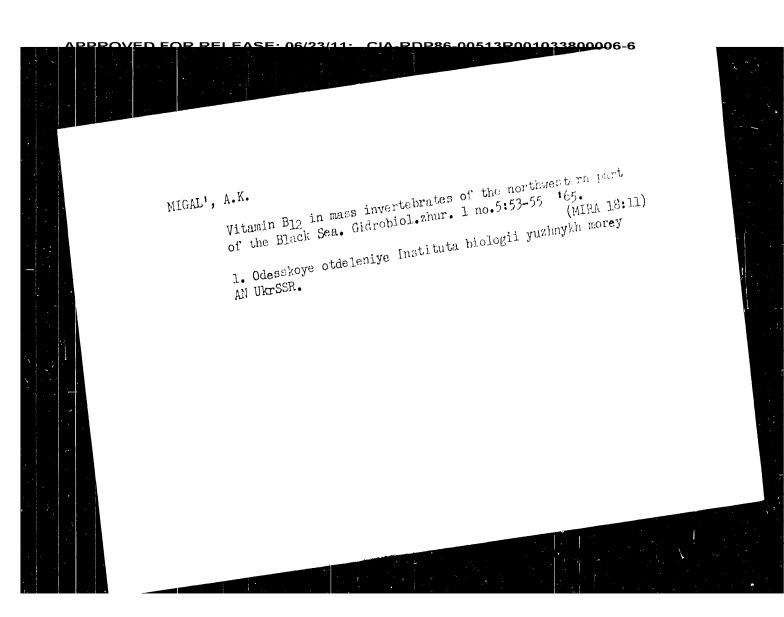
TITIE: Some electrical and optical properties of thin layers of indium phosphide

CITED SOURCE: Tr. po fiz. poluprovodnikov. <u>Kishinevsk. un-t</u>, vyp. 1, 1962,

TOPIC TAGS: Semiconductors, thin layers, indium phosphide, electrical and

TRANSLATION: Thin layers of indium phosphide were obtained by evaporating in optical properties vacuum either bulky specimens of polycrystalline indium phosphide, or else P and In separately, on glass substrates. The most stable layers were obtained by the second method of evaporation on a substrate heated to 260° C WWITH SUBSEQUENT ANNEALING AT THE SAME TEMPERATURE FOR TWO HOURS. The thickness of the layers was measured with the aid of an interference microscope. The measurement of the specific resistivity of layers of the n-type was with the aid of electrodes

Card 1/2



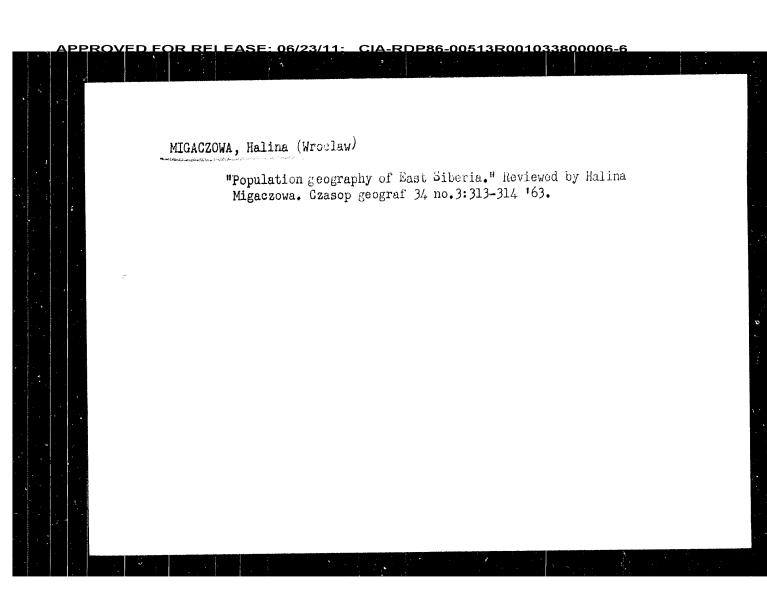
MIGAL', A.K. [Myhal', O.K.] Study of vitamin B12 in invertebrates 'mussels and shrimps) of the Black Sea. Ukr. biokhim. zhur. 35 no.2:251-255 '63. (MIRA 17:9) 1. Laboratory of Biochemistry of the Udessa Biological Station of the Institute of Hydrobiology, Academy of Sciences, Ukrainian S.S.R. Use of vitamin 512 in optic neuritis. Klin.oczna 31 no.4:349-352 161.

1. Z Kliniki Okulistycznej Slaskiej AM w Zabrzu Kierownik: prof. dr med. M. Madroszkiewicz.

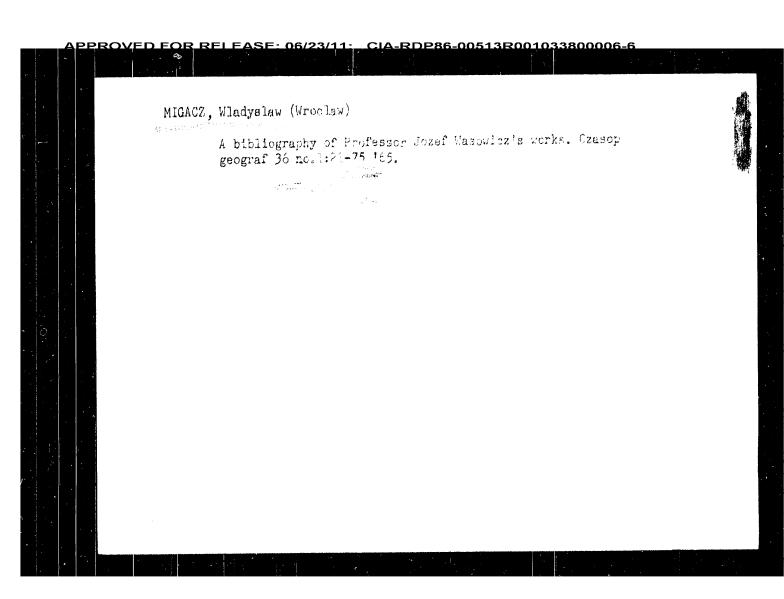
(VITAMIN B12 ther) (OPTIC NERVE dis)

(NEURITIS ther)

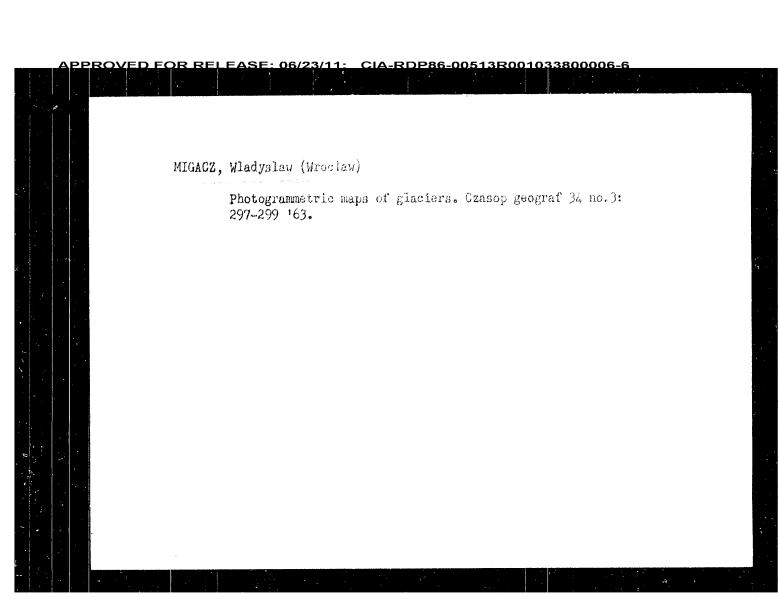
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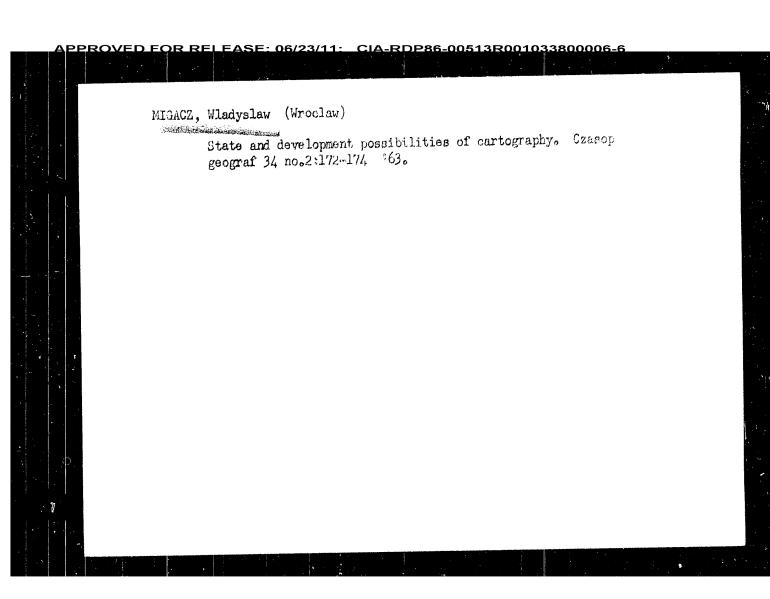


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